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## Abstract

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**PI Title:**

**Project Title:** RURAL DWELLING OLDER ADULTS: CPAP ADHERENCE SUPPORT

**Abstract:** *Obstructive Sleep Apnea (OSA) is the most prevalent and costly sleep disorder in essentially healthy older adults. OSA is associated with cardiovascular and neurocognitive sequelae and with public safety losses due to traffic fatalities and other accidents that cost 43 to 56 billion dollars annually (National Commission Sleep Report, number 1, 1993). OSA is controlled with nightly Continuous Positive Airway Pressure (CPAP) ventilation, the treatment of choice (National Commission on Sleep Report number 2, 1994). The primary aim of this randomized clinical trial is to determine the long-term adherence, health, quality of life outcomes, and cost-benefit of a comprehensive intervention on CPAP ventilation in 168 rural dwelling older adults with OSA. Adherence is measured by microprocessor pressure-sensor timer/recorder as patient hours of nightly CPAP use. The Secondary Aim is to assess relationships among CPAP adherence, quality of life, family caregiving, use of a decision aid for driving safety and accidents. The intervention was derived from Triandis and Smith models and each intervention step has been tested in older adults. The intervention steps gradually increase in intensity from self-directed and focused counseling to in home 2-way telehealth monitoring that allows a nurse to direct CPAP care and assess for physical and emotional barriers to adherence and internet interaction. Intervention steps in this proposed study are administered per criteria only if the patient is not adhering to the prescribed CPAP treatment. The steps use music and focused imagery for CPAP habit initiation and sensitization to physiologic and affective benefits from CPAP and mobilizing the family to overcome barriers to CPAP use. Through the internet, subjects connect to peer and professional counselors, engage in interactive adherence support activities, obtain accurate information when seeking unproven cures*

*and use decision aids for driving. An established Univ. of Ks. multidisciplinary team will conduct the study with a subcontract with the Univ. of Wisc. The long-term goal of this proposed study is to validate a CPAP adherence support system that will ultimately improve patient and family caregiver quality of life and public safety, as well as reduce patient and family caregivers' morbidity and the 100 billion dollars spent annually on non-adherence.*

***Thesaurus Terms:***

*geriatric medicine, human therapy evaluation, respiratory therapy, rural area, sleep apnea caregiver, clinical trial, cost effectiveness, counseling, patient monitoring device, quality of life, telecommunication, therapy compliance, vehicular accident  
clinical research, human old age (65+), human subject*

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